

XP-002079250

1/1 - (C) WPI / DERWENT
AN - 89-325039 ç45!
AP - DD880312703 880208
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TI - Prepn. of microporous active carbon from lignite coke -
by activation in atmos. contg. steam and carbon
di:oxide, limiting heat supply
IW - PREPARATION MICROPOROUS ACTIVE CARBON LIGNITE COKE
ACTIVATE ATMOSPHERE CONTAIN STEAM CARBON DI OXIDE LIMIT
HEAT SUPPLY
IN - HESCHEL W; KLOSE E; KRAFT M; MOBIUS R; SPINDLER H;
SZARGAN P
PA - (VELW) VEB LEUNA-WERKE ULRICH W
PN - DD268677 A 890607 DW8945 005pp
ORD - 1989-06-07
IC - C01B31/10
FS - CPI
DC - E36 J01
AB - DD-268677 Microporous active C is prep'd. from lignite
coke by partial gasification in a medium contg.
H₂O/CO₂, activation at 980-1200 K, in absence of O₂,
batchwise or in a reactor with a narrow range of
residence time, and addn. of reaction heat of 100-800
kJ/kg C. The activated C is cooled, opt. extd., washed
with water, and dried.
- Pref. the raw material is lignite low temp. coke (BTT
coke) from carbonisation involving gas recirculation;
the gas used for activation is obtd. by combustion of
gases contg. hydrocarbons in air at gamma less than 1,
in a pre-inserted combustion chamber; and the amt. of
reducing gases CO and H₂ is above 5%.
- USE/ADVANTAGE - The C has 35-45% porosity, with half of
the pores having dia. 0.4-0.7 nm, the rest being
transport pores with dia. above 20 nm. The mesopores
form less than 10% of the total pore vol. The sepn.
properties are similar to those of molecular sieves.
The active C is used for purificn. and sepn. of
gases.(0/0)